

CLAIMS

What is claimed is:

1. A method of capturing and selectively analyzing data frames transmitted between stations in a communications network utilizing tunneling protocols, comprising:
 - establishing a connection with a communications network;
 - receiving, in real-time, data frames transmitted in the communications network, wherein the data frames are communicated utilizing tunneling; and
 - analyzing the data frames that are communicated utilizing tunneling.
2. The method as recited in claim 1, wherein the tunneling involves a tunnel.
3. The method as recited in claim 2, wherein the tunnel includes an Internet Protocol (IP) tunnel.
4. The method as recited in claim 2, wherein the tunnel includes a General Packet Radio Service (GPRS) Tunnel Protocol (GTP) tunnel.
5. The method as recited in claim 2, wherein the tunnel includes a Generic Routing Encapsulation (GRE) tunnel.
6. The method as recited in claim 1, wherein the analyzing is conditionally performed.

7. The method as recited in claim 6, wherein the analyzing is conditionally performed based on user input.
8. The method as recited in claim 6, wherein the analyzing is conditionally performed for one or more types of tunnels associated with the tunneling.
9. The method as recited in claim 8, wherein the analyzing is conditionally performed for one or more types of tunnels associated with the tunneling based on user input.
10. The method as recited in claim 1, wherein the analyzing includes executing a plurality of protocol interpreters.
11. The method as recited in claim 10, wherein the protocol interpreters include an Internet Protocol (IP) protocol interpreter.
12. The method as recited in claim 11, wherein the IP protocol interpreter is re-executed to accommodate the tunneling.
13. The method as recited in claim 10, wherein the protocol interpreters generate at least one object.
14. A computer program product embodied on a computer readable medium of capturing and selectively analyzing data frames transmitted between stations in a communications network utilizing tunneling protocols, comprising:
 - computer code for establishing a connection with a communications network;

computer code for receiving, in real-time, data frames transmitted in the communications network, wherein the data frames are communicated utilizing tunneling; and

computer code for analyzing the data frames that are communicated utilizing tunneling.

15. The computer program product as recited in claim 14, wherein the tunneling involves a tunnel.

16. The computer program product as recited in claim 15, wherein the tunnel includes an Internet Protocol (IP) tunnel.

17. The computer program product as recited in claim 15, wherein the tunnel includes a General Packet Radio Service (GPRS) Tunnel Protocol (GTP) tunnel.

18. The computer program product as recited in claim 15, wherein the tunnel includes a Generic Routing Encapsulation (GRE) tunnel.

19. The computer program product as recited in claim 14, wherein the analyzing is conditionally performed.

20. The computer program product as recited in claim 19, wherein the analyzing is conditionally performed based on user input.

21. The computer program product as recited in claim 19, wherein the analyzing is conditionally performed for one or more types of tunnels associated with the tunneling.

22. The computer program product as recited in claim 21, wherein the analyzing is conditionally performed for one or more types of tunnels associated with the tunneling based on user input.

23. The computer program product as recited in claim 14, wherein the analyzing includes executing a plurality of protocol interpreters.

24. The computer program product as recited in claim 23, wherein the protocol interpreters include an Internet Protocol (IP) protocol interpreter.

25. The computer program product as recited in claim 24, wherein the IP protocol interpreter is re-executed to accommodate the tunneling.

26. The computer program product as recited in claim 23, wherein the protocol interpreters generate at least one object.

27. The computer program product as recited in claim 26, wherein statistics associated with the objects are displayed via a user interface.

28. A system for capturing and selectively analyzing data frames transmitted between stations in a communications network utilizing tunneling protocols, comprising:

a network analyzer coupled to a communications network for receiving, in real-time, data frames transmitted in the communications network, the data frames being communicated utilizing tunneling, wherein the data frames that are communicated utilizing tunneling are analyzed.

29. A graphical user interface for selective enabling the analysis of communications network utilizing tunneling protocols, comprising:

- a user interface for receiving input from a user;
- enabling a tunnel analysis based on the user input;
- wherein the tunnel analysis includes analyzing data frames that are communicated utilizing tunneling.

30. A system for utilizing statistical analysis and fault diagnosis capabilities of a network analyzer to analyze conversations inside mobile wireless tunneling entities.